

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-10 (Cancelled)

11. (Currently Amended) A method for caching a content element, the method comprising the steps of:

~~receiving a content element retrieval request corresponding to the content element;~~  
~~sending a retrieval response, in response to the content element retrieval request, the retrieval response indicating whether the content element resides in a component cache;~~  
~~receiving, by a cache manager, a content element insertion request; corresponding to the content element;~~  
~~sending an insertion response, in response to the content element insertion request, the insertion response indicating whether the content element was successfully inserted into the component cache;~~  
~~determining whether the content element should reside in the component cache;~~  
~~removing the content element from the component cache, in response to a determination that the content element should not reside in the component cache; and~~  
computing a navigation probability data field for a cacheline in which said content element is to be stored, where said computing accounts for whether said cacheline has zero, one, or multiple predecessors;  
~~associating, by said cache manager, the content element with a content element node and storing the content element and the content element node in the a component cache, in response to a determination that the content element should reside in the component cache, said content element node comprising said navigation probability data field. a next node data component comprising node identifiers (NodeIDs) for all nodes that are reachable in a single step from a current node.~~

12. (Currently Amended) The method of Claim 11, wherein the content element node further comprises a node identifier (NodeID) data field, timestamp data field, a content component, and a next node data component comprising node identifiers for all nodes that are reachable

~~in a single step from a current node, and a navigation probability (NavProb) data field comprising a conditional probability that a user will request a current content element.~~

13. (Currently Amended) The method of Claim 11, ~~wherein the determination~~ further comprising determining, by a content replacement manager, that the content element should not reside in the component cache ~~is made by a content replacement manager.~~

14. (Original) The method of Claim 13, wherein the content replacement manager determines whether the content element should reside in the component cache by determining whether a second content element should replace the content element.

15. (Original) The method of Claim 13, wherein the content replacement manager determines whether the content element should reside in the component cache by determining how recently the content element has been referenced.

16. (Original) The method of Claim 13, wherein the content replacement manager determines whether the content element should reside in the component cache by determining the likelihood that the content element will be needed.

17. (Original) The method of Claim 16, wherein the content replacement manager determines that the content element should not reside in the component cache, in response to a determination that the content element is unlikely to be needed.

18. (Original) The method of Claim 16, wherein the content replacement manager determines that the content element should reside in the component cache; in response to a determination that the content element is likely to be needed.

19-31 (Cancelled)